IN THE CLAIMS:

Claims 1-3 (canceled).

4. (currently amended) An apparatus for determining the stability margin, with respect to a possible self-oscillation, in a radio frequency repeater operating with a predetermined delay between an input ~~(5)~~ and an output ~~(6)~~ and having a feedback path between said output and said input, comprising

- at least one sensing element ~~(30, 40)~~ connected to at least one of said input and said output of the repeater, and
- at least one measurement receiver ~~(60)~~ connected to said at least one sensing element for measuring at least an output signal from said repeater, on the basis of which the stability margin (SM) is calculated.

5. (original) The apparatus as defined in claim 4, wherein said at least one sensing element comprises at least one directional coupler.

6. (currently amended) The apparatus as defined in claim 5, wherein two directional couplers are connected to a single measurement receiver via a switch ~~(50)~~ for alternating measurement of the signals at the output and the input, respectively.

7. (currently amended) The apparatus as defined in claim 4, wherein: said measurement receiver ~~(60)~~ is connected to a control unit ~~(70)~~ for controlling the gain of said repeater.

8. (currently amended) The apparatus as defined in claim 4, wherein: said measurement receiver is connectable, via a modem ~~(80)~~, to a central operational monitoring unit, whereby the measurements and calculations for determining said stability margin can be made by remote control.

9. (currently amended) The apparatus as defined in claim 4, wherein: a band pass filter ~~(32, 42)~~ is inserted between said sensing element and said measurement receiver.

10. (currently amended) A repeater system, including a radio frequency repeater of the kind having two antennas (1, 2) and the two links ~~therebetween~~ there between, said two links comprising an uplink (10) for amplifying signals from a mobile telephone to a base station and a downlink (20) for amplifying signals from said base station to said mobile telephone, said repeater system being provided with an apparatus as defined in ~~any one of the claims 4-9~~ claim 4.